Collaborative Research Support Programs for the U.S. Feed the Future Plan

CRSP
COLLABORATIVE RESEARCH
SUPPORT PROGRAMS

USAID
FROM THE AMERICAN PEOPLE

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The Relevance of Existing CRSPs to the Feed the Future Initiative

Reflecting the wisdom of portfolio decisions made by USAID and the Board for International Food and Agricultural Development (BIFAD) over the years, the Collaborative Research Support Programs (CRSPs) are highly relevant to the Feed the Future Initiative (FtF), closely matching the country focus, the core investment areas, and the Seven Key Areas of the Global Hunger and Food Security Initiative. Most CRSP activities are aimed at increasing agricultural productivity, enhancing access to markets, ensuring nutritional security, and effectively utilizing agricultural commodities and natural resources through value addition. All eight identified outputs of FtF are already included in the goals of most CRSP programs.

Similarly there is a strong geographic correspondence of CRSP international engagements to the USAID "focal countries" identified by FtF (Table 1). Each CRSP has rated its relevance to FtF topics and interests (Table 2). As can be observed, this alignment makes a compelling case for the CRSPs to play a seminal role in realizing the objectives defined in the FtF Strategy. Special foci and outcomes of the CRSPs are the generation of knowledge and technologies relevant to the needs of the agriculture in developing countries. CRSPs also build institutional capacity and human resources in-country to support agricultural growth and improved nutrition.

While CRSPs transfer technologies and disseminate new knowledge, they could greatly benefit from mission support allowing national, regional and global scale-up of these efforts. CRSPs presently depend on public and private sector partners, but with additional funding from missions for deployment of technologies the CRSPs could assume greater responsibility for the outcomes and impacts planned from the FtF initiative.

The Collaborative Research Support Programs (CRSPs)
The CRSPs were put into place to exploit the capabilities of U.S. land-grant universities to accelerate agricultural development in nations worldwide. This was made possible by the United States Congress through the passage of the International Development and Food Assistance Act of 1975 which included Title XII "Famine Prevention and Freedom from Hunger". Title XII was further amended by the "Famine Prevention and Freedom from Hunger Improvement Act of 2000," which states, "The Congress declares that, in order to achieve the mutual goals among nations of ensuring food security, human health, agricultural growth, trade expansion, and the wise and sustainable use of natural resources, the United States should mobilize the capacities of the United States land-grant universities, other eligible universities, and public and private partners of universities in the United States and other countries, consistent with sections 103 and 103A of this Act, for: (1) global research on problems affecting food, agriculture, forestry, and fisheries; (2) improved human capacity and institutional resource development for the global application of agricultural and related environmental sciences; (3) agricultural development and trade research and extension services in the United States and other countries to support the entry of rural industries into world markets; and (4) providing for the application of agricultural sciences to solving food, health, nutrition, rural income, and environmental problems, especially such problems in low-income, food deficit countries."

This document highlights the existing CRSP activities and demonstrates the strong relationship to, and support for, FtF goals presently being implemented by CRSPs. Clearly these programs will be important to FTF in the provision of new technologies and knowledge as well as the development of the communities participating in this initiative.

For questions about this document or information CRSP activities contact the current CRSP Council Chair, Dr. Jonathan H. Williams-Peanut CRSP Director at jhtimwil@uga.edu or his Associate Director, Dr. Carolyn Fonseca cf@uga.edu.

For information about specific CRSPs use the links inside this document associate with each CRSP.

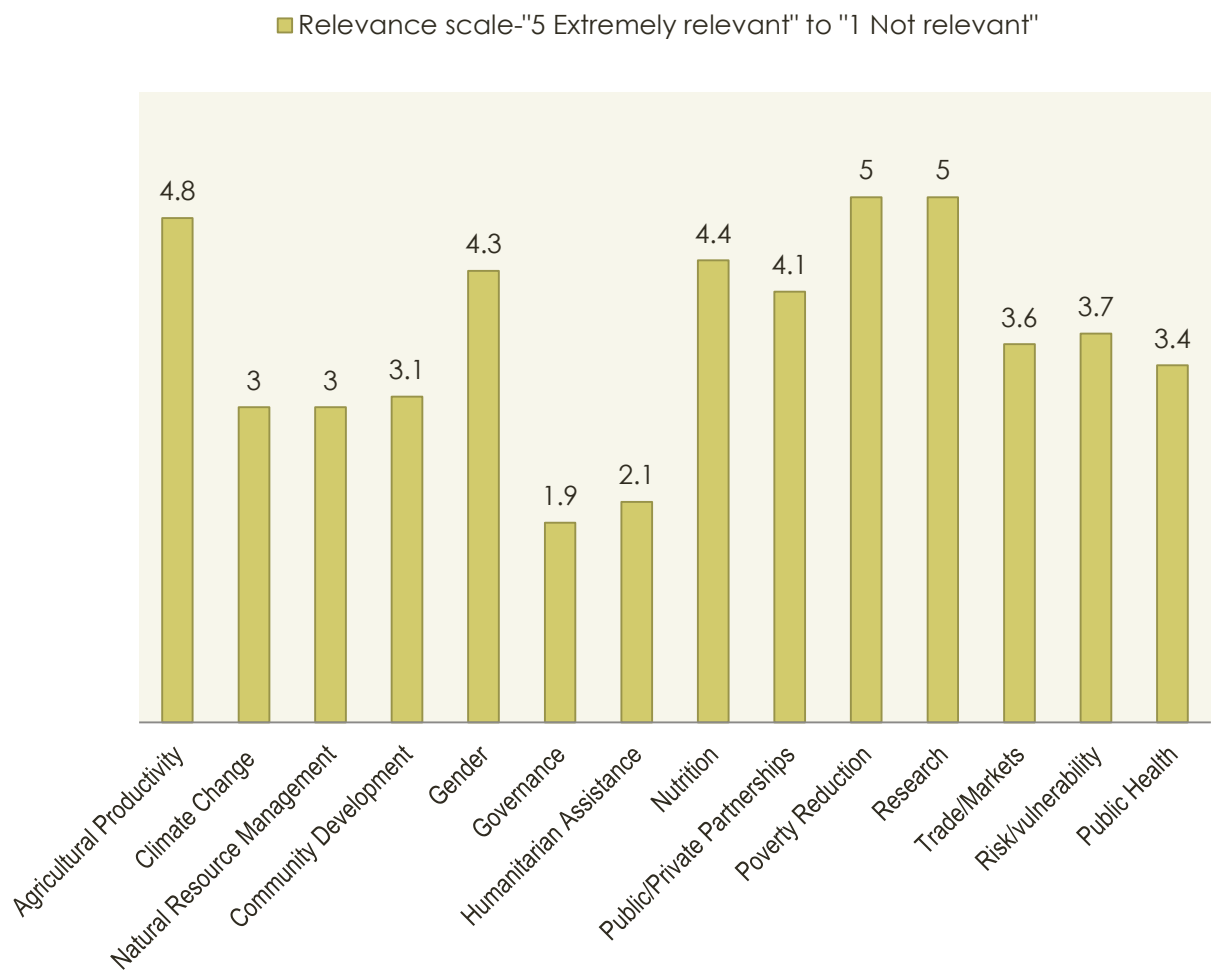
Table 1. CRSPs already active in FtF focus countries.

CRSP → / Country ↓	AquaFish	BASIS	Horticulture	IPM	INTSORMIL	Livestock and Climate Change	Nutrition	Peanut	Dry Grain Pulses	SANREM
Africa										
Ethiopia		*		*	*	*				
Ghana	*	*	*	*	*			*		*
Kenya	*	*	*	*	*	*		*	*	*
Liberia		*								
Malawi		*	*							
Mali	*	*		*	*	*	*		*	*
Mozambique		*			*				*	
Rwanda			*						*	
Senegal				*	*	*		*	*	
Tanzania	*		*	*	*	*			*	
Uganda	*	*	*	*	*			*	*	*
Zambia			*		*				*	
Asia										
Bangladesh	*	*	*	*		*				
Cambodia	*	*	*	*						*
Nepal	*		*	*		*	*			*
Tajikistan				*		*				
Latin America and Caribbean										
Guatemala		*	*	*	*				*	
Haiti			*		*			*	*	*
Honduras			*	*	*				*	
Nicaragua	*	*	*		*				*	
Strategic Partner Countries										
Brazil		*						*		
India		*	*	*						*
Nigeria									*	
S. Africa	*	*	*		*				*	

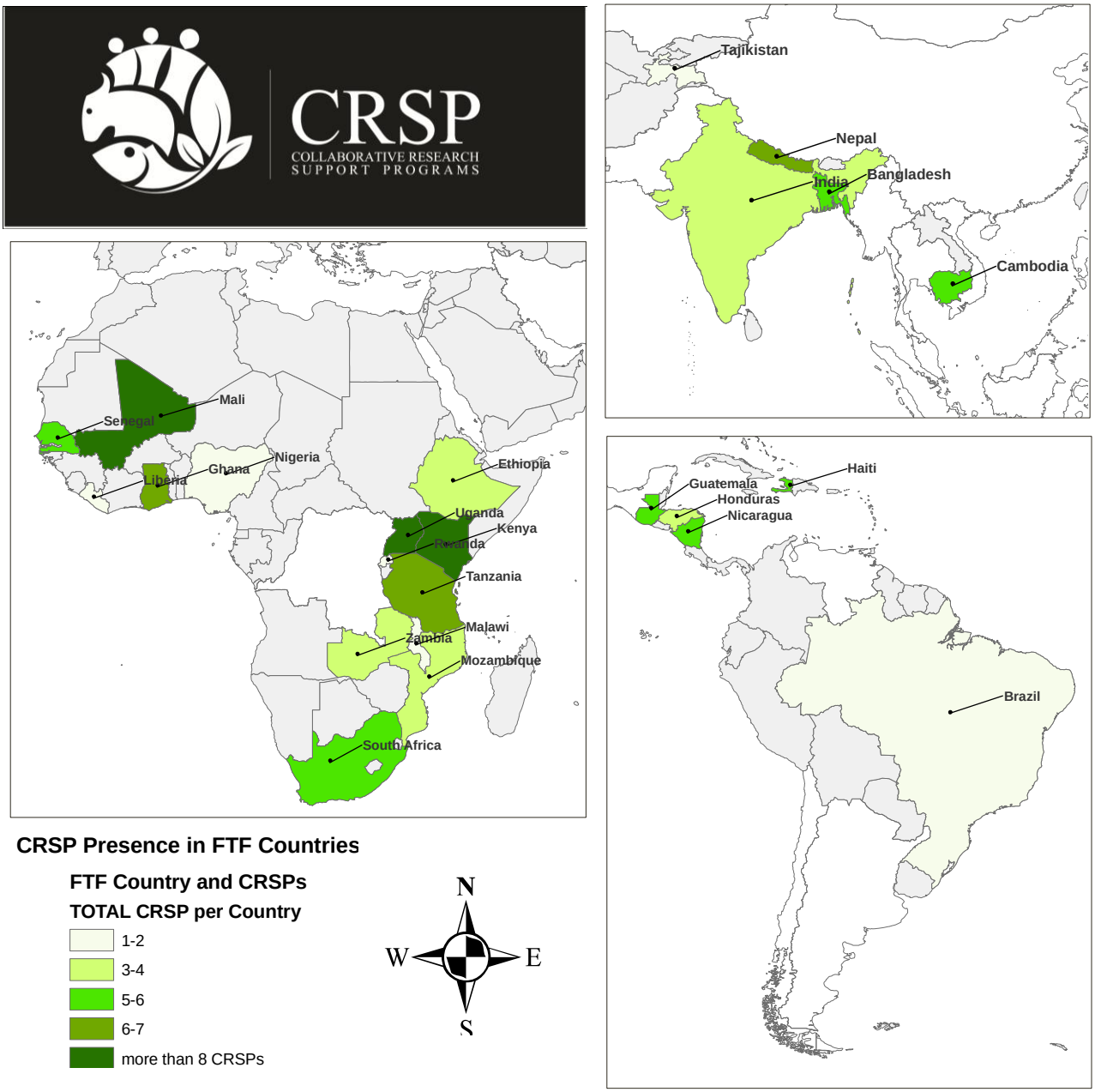
Table 2. Relevance of CRSPs to FtF Topics and Interests (5 = extremely relevant). (See Appendix to view bar graphs of this data)

CRSP → / *FtF Topic ↓*	Aquafish	BASIS	Horticulture	IPM	INTSORMIL	Livestock and Climate Change	Nutrition	Peanut	Dry Grain Pulses	SANREM
Ag Productivity	5	3	5	5	5	5	5	5	5	5
Climate Change	3	3	3	4	1	5	1	1	5	4
Natural Resource Management	5	2	2	5	2	5	2	2	1	4
Community Development	4	2	3	3	2	4	5	3	3	2
Gender	4	3	5	5	3	4	5	4	5	5
Governance	3	3	1	2	1	1	3	2	0	3
Humanitarian Assistance	3	4	0	2	2	1	3	3	1	2
Nutrition	5	2	5	4	4	4	5	5	5	5
Public/Private Partnerships	4	5	4	4	5	3	4	4	5	3
Poverty Reduction	5	5	5	5	5	5	5	5	5	5
Research	5	5	5	5	5	5	5	5	5	5
Trade/Markets	3	4	4	4	3	5	2	3	5	3
Risk/vulnerability	4	5	2	3	3	5	4	3	4	4
Public Health	3	2	2	5	2	3	5	5	5	2

"How relevant are the FtF Topics in CRSPs?"

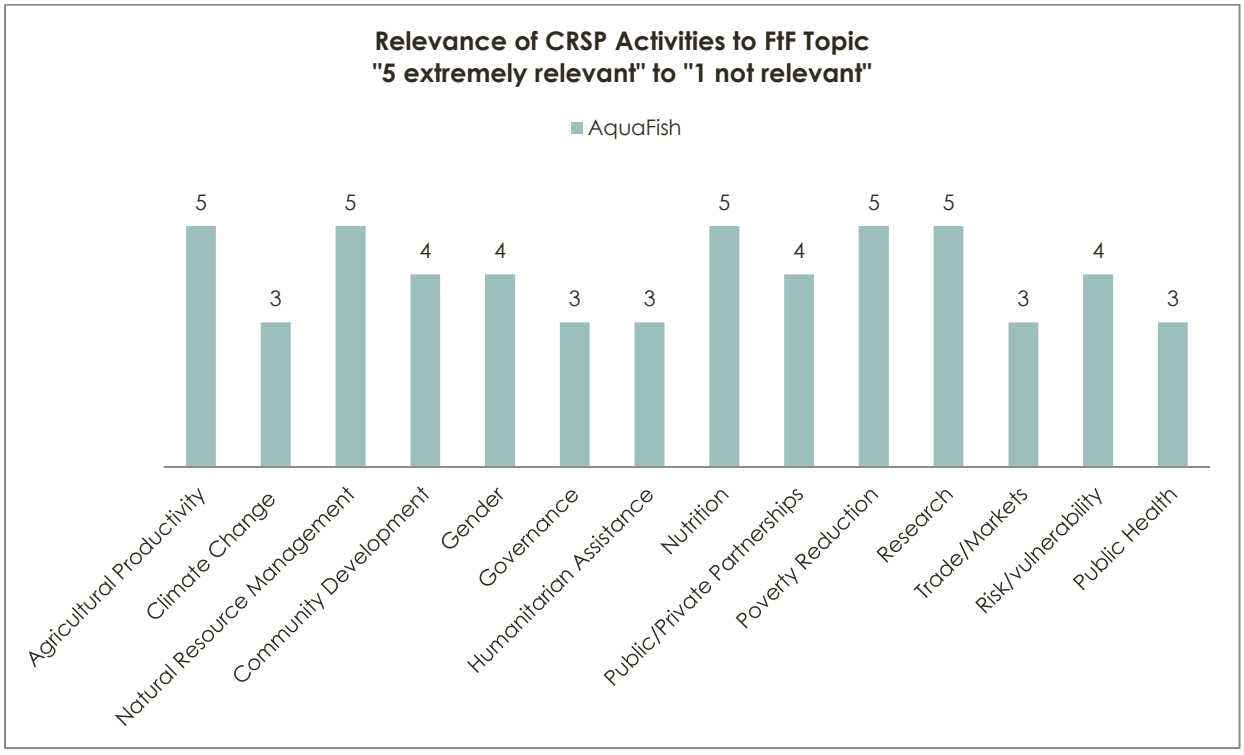


CRSPs work worldwide, but have a particularly strong presence in FtF focus countries. The following maps show the number of CRSPs located in each FtF country including those countries designated as strategic partners



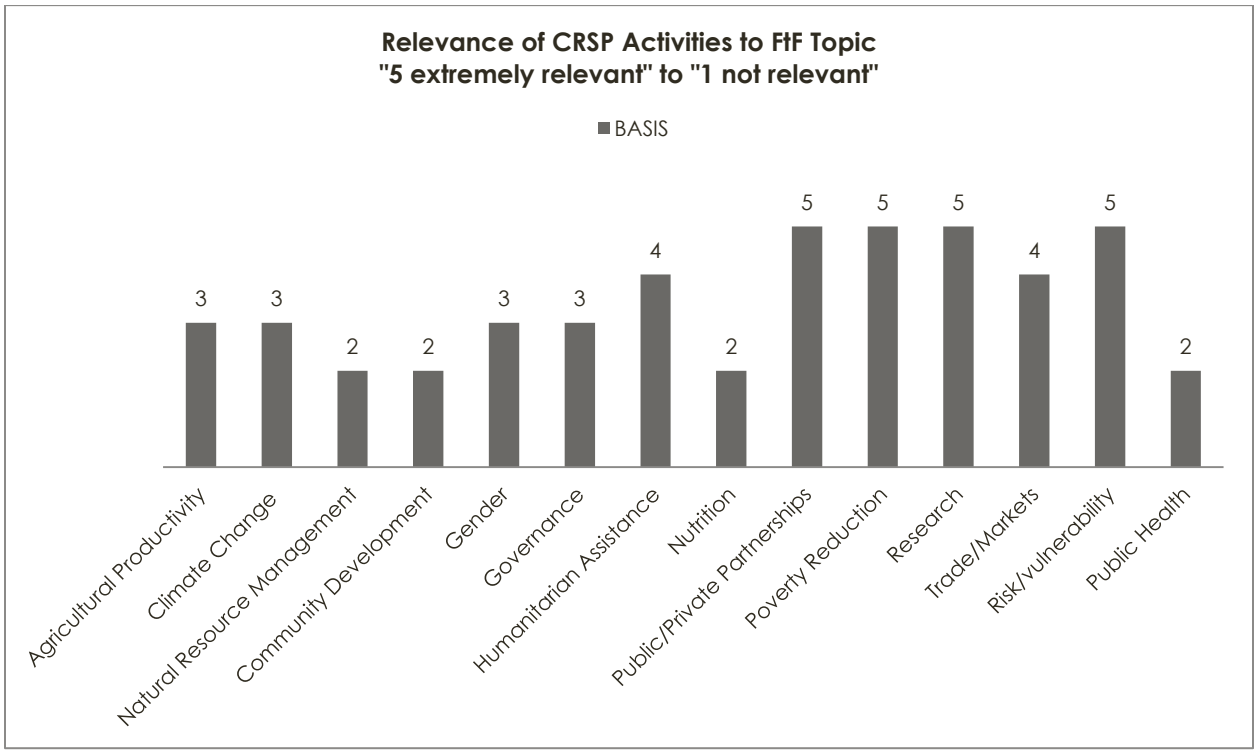
AquaFish CRSP

The Aquaculture & Fisheries CRSP (AquaFish) is committed to carrying out the goals of the FtF Initiative to sustainably reduce global hunger and poverty. In implementing its strategies for improving the livelihoods of smallholder farmers and fishers, AquaFish CRSP is aligned with the FtF key objectives to accelerate inclusive agriculture sector growth and improve nutritional status. AquaFish CRSP's cross-cutting projects involve stakeholders at all levels and emphasize gender equity, environmentally sustainable development, and sound natural resource management. Combining the resources of 16 US and 29 Host Country partner institutions, AquaFish CRSP is currently engaged in ten FtF Focus Countries. Within the aquaculture and capture-fishery sectors of agriculture-led development, the AquaFish CRSP has invested its efforts across a broad range of FtF target areas — *Improving Agricultural Productivity*: focusing on local solutions to develop sustainable fish feeds, aquaculture, cage culture and native shellfish hatchery technologies, best management practices for fish farmers and processors, and management plans for threatened native fisheries; mentoring producer cooperatives; and training the rural poor through extension and outreach. *Expanded markets and trade*, particularly for women, is achieved by training stakeholders in value chain development for aquatic products; applying value chain analysis to assess market opportunities for farmed fish; and expanding market opportunities through food quality and safety standards for processed products. AquaFish helps build sustainable aquaculture and capture fisheries' sectors by developing management plans for fisheries and watersheds, domesticating local species for aquaculture development, and training smallholders to enter aquaculture or to improve practices results in *increased economic resilience and less vulnerable rural communities*.



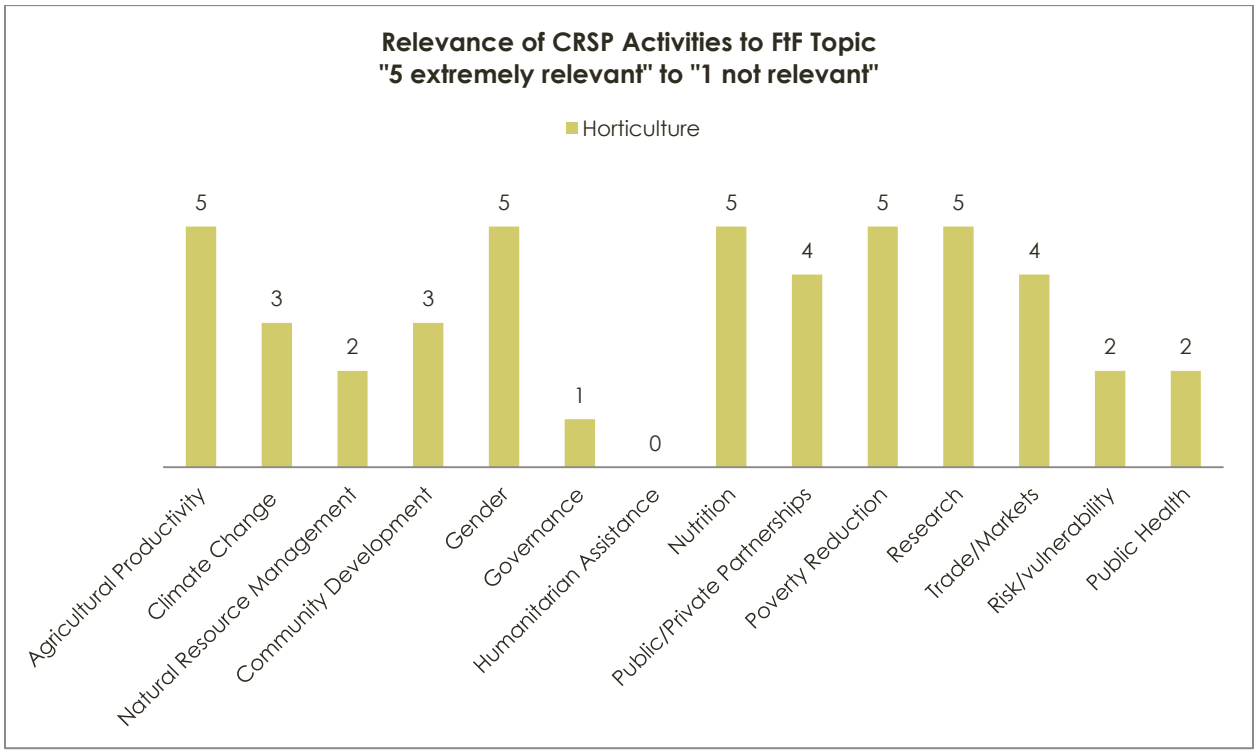
BASIS CRSP

The BASIS Assets and Market Access Collaborative Research Support Program (BASIS) currently has activities in 12 of the FtF priority countries. Building on prior and ongoing basic research that documents the impact of risk on generating and sustaining poverty, BASIS strongly aligns with the FtF priority of Increasing Economic Resilience in Vulnerable Rural Communities. Current BASIS research, pilot projects, and impact evaluation activities include analyses of *Productive safety nets, Local and regional food procurement, and Extension of financial services.* Particularly important are projects where BASIS has designed and worked with market actors to implement index-based agricultural insurance for small scale producers, giving households access for the first time to *sound and affordable risk management services.* BASIS also is exploring the effective design of fertilizer subsidies, which affect smallholder *access to affordable inputs and improved technologies.* Further contributing to the goal of Accelerating Inclusive Agricultural Sector Growth, BASIS has projects that examine the impact of financial and business training designed to help smallholder farmers *improve access to business development and financial services.*



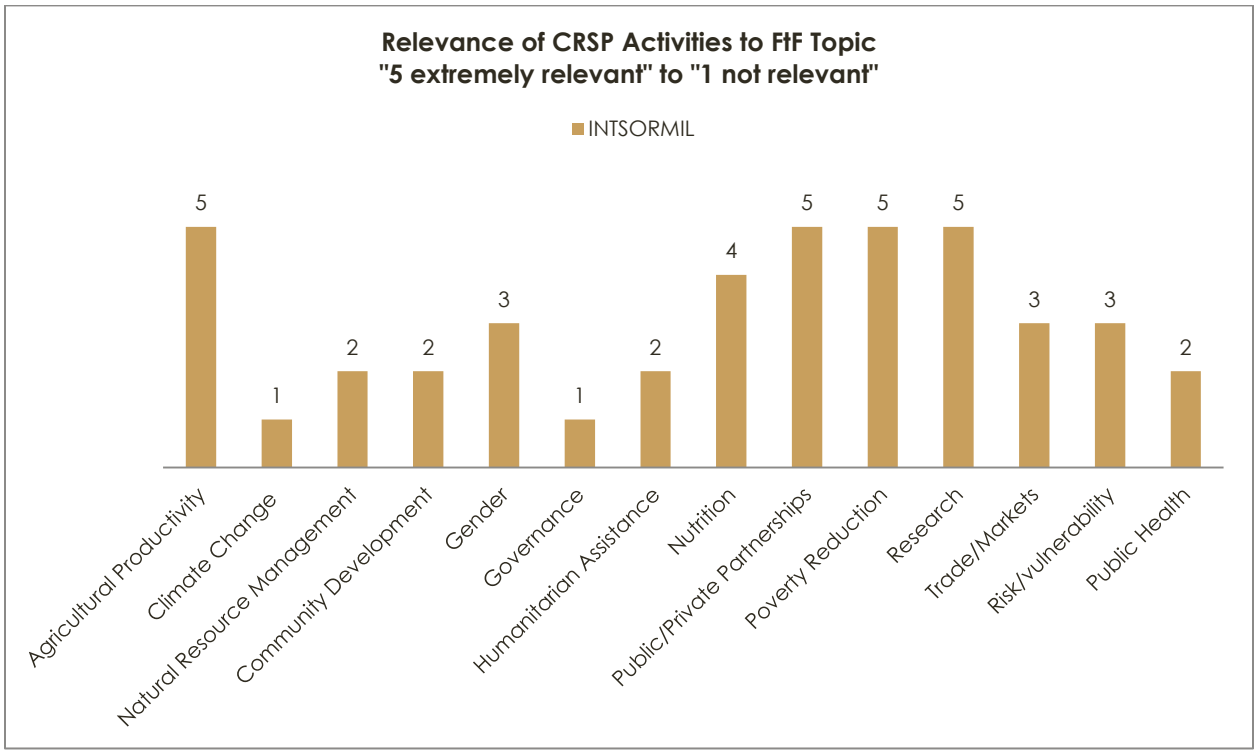
Horticulture CRSP (HORT CRSP)

The Horticulture CRSP emphasizes the horticulture value chain, i.e. the production, marketing and consumption/utilization of fruits, vegetables, spices and medicinal plants, and ornamentals, to improve the incomes nutrition, health, and economic well-being of the rural poor, especially women. Hort CRSP project goals are to 1) increase production of nutritious foods and provide households with a diverse micronutrient-rich diet, 2) improve safety and reduce postharvest losses of nutritious but perishable foods, 3) improve incomes by linking farmer groups with domestic and export market opportunities, and 4) empower women by providing increased access to income through production and marketing of horticultural crops. Hort CRSP achieves these goals through innovative technology, increased access to information, human and institution capacity building, and gender equity. Hort CRSP projects are aligned with and directly relevant to the Feed the Future Initiative priorities of Agriculture Productivity, Community Development, Gender, Nutrition, Public-Private Partnerships, Poverty Reduction, Research, and Trade/Markets. The Horticulture CRSP currently has 30 projects in 20 countries of Sub-Saharan Africa, South and Southeast Asia, and Latin America.



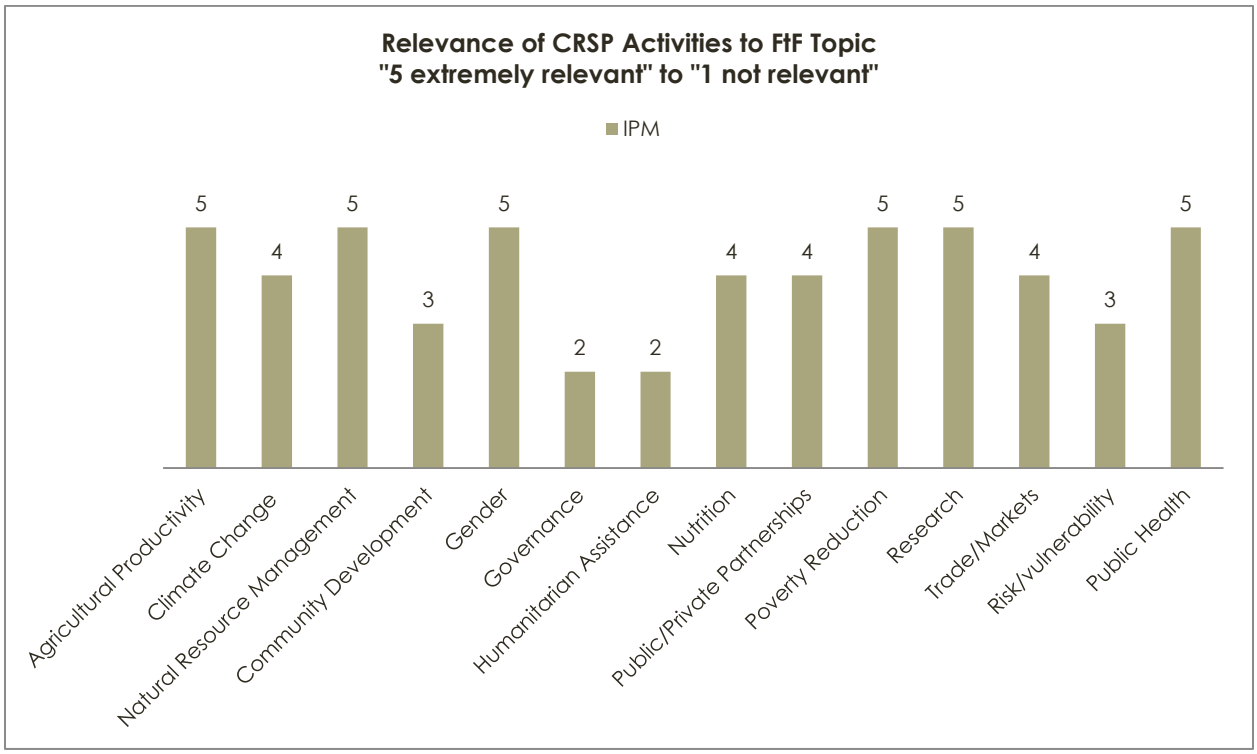
INTSORMIL CRSP

The Sorghum, Millet and Other Grains CRSP (INTSORMIL) will contribute to the goals and objectives of the FtF Initiative which are to sustainably reduce chronic hunger, raise the incomes of the rural poor, and reduce the number of children suffering from under-nutrition. INTSORMIL has collaborative research Memorandum of Agreement with 14 of the Food Security Focus countries as of September, 2010. INTSORMIL program investments are in the areas of: a) *Raising Agricultural Productivity* – Focusing on adoption of higher yielding technologies, technology generation, water management, and land rights and land use, b) *Linking Farmers to Markets* – Focusing on reducing transfer and transaction costs, supporting mobilization of rural finance, and other value-adding innovations, c) *Reducing Risk and Vulnerability* – Focusing on price management and weather risk, reducing production and storage pests and diseases, strengthening food-related social protection in rural and urban areas, and improving nutrition of vulnerable groups, d) *Improving Non-Farm Rural Livelihoods* – Focusing on improvement of the investment climate and promoting non-farm rural entrepreneurship.



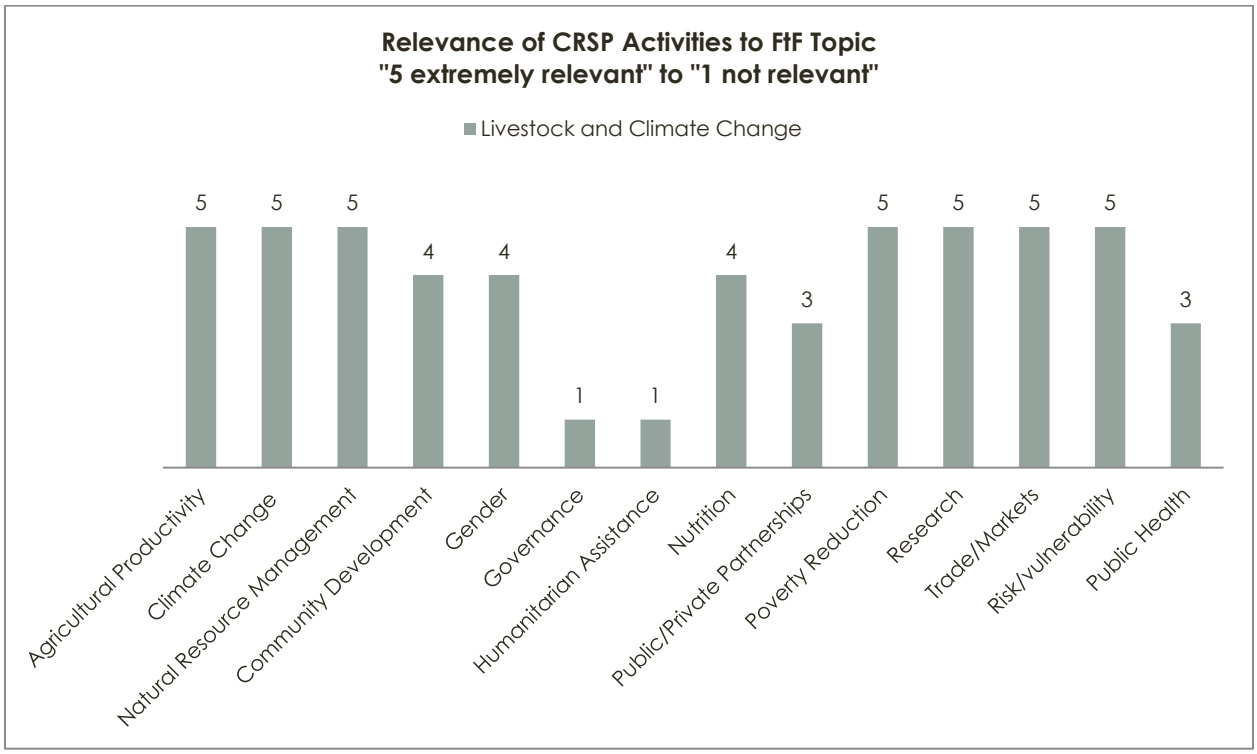
Integrated Pest Management (IPM) CRSP

The mission of the IPM CRSP is research to develop pest management solutions for smallholder farmers around the world and to promote transfer of these technologies. Combining the resources of 18 U.S. and 46 host country partner institutions, the IPM CRSP contributes directly to the FtF performance indicators. The IPM CRSP contributes to multiple FtF target areas: Improving Agricultural Productivity by developing technologies that increase yields, reduce losses due to pests, and thereby improve household incomes. The majority of this work is focused on vegetables. IPM CRSP works on expanding Markets and Trade by addressing sanitary and phytosanitary issues and increasing the comparative advantage of producers who reduce pest management costs and increase surpluses. IPM CRSP reduces *risk and vulnerability* by improving availability of food and by improving incomes among poor smallholders who grow food for sale. By focusing on production of high value fruits and vegetables often grown in the counter season to grain crops, the IPM CRSP promotes household economic resilience through income diversification while also supporting improved nutrition. Technical assistance, institution building, and capacity development are achieved by supporting farmer training for technology transfer as well as short-and long-term training of host country partners.



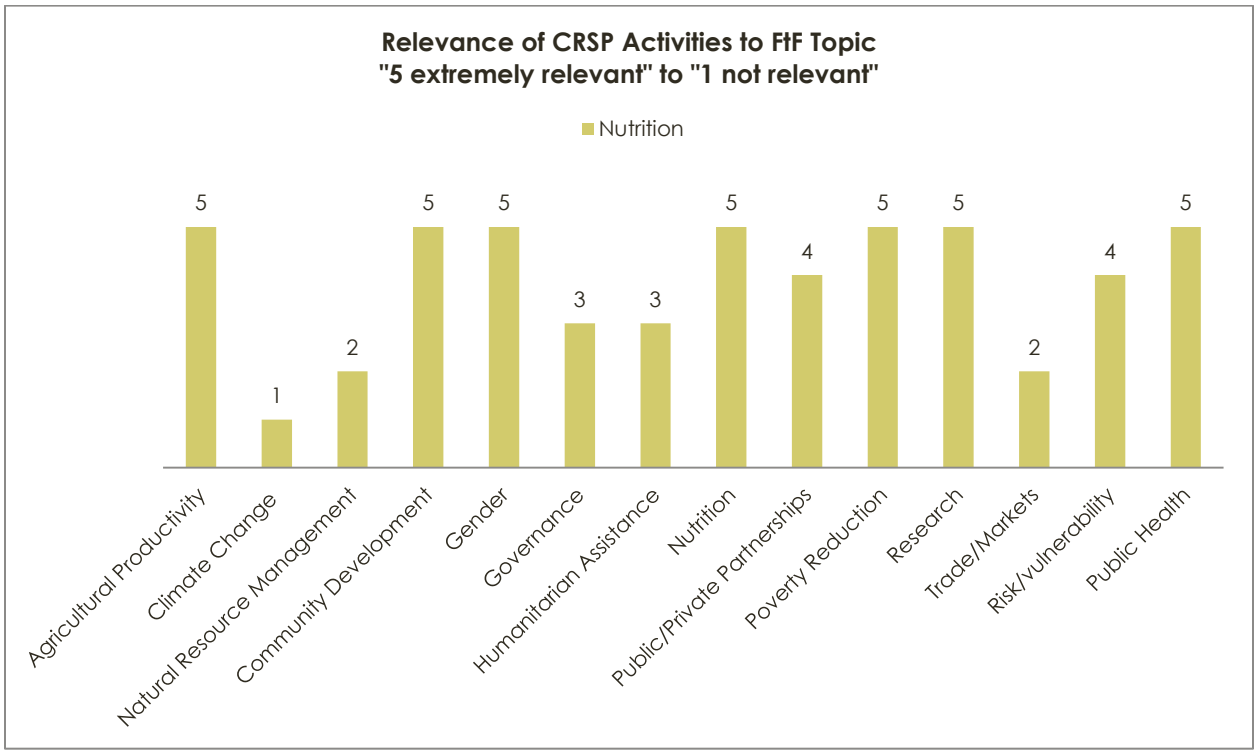
The Livestock-Climate Change (LCC) CRSP

Expanded in 2010 to include the climate change component, LLC CRSP is contributing to the goals and objectives of FtF to reduce hunger and under-nutrition and raise the incomes of the rural poor. The LCC CRSP catalyzes and coordinates research to improve the livelihoods of livestock producers affected by climate change by reducing vulnerability and increasing adaptive capacity. The LCC CRSP has over 15 collaborative research projects in Feed the Future countries (Ethiopia, Kenya, Mali, Senegal, Tanzania, Tajikistan), and anticipates expanding into Nepal and Bangladesh in 2011. The LCC CRSP supports the Feed the Future goals through: Expanding Markets and Trade (builds pro-poor value chains, expand income opportunities for livestock producers to alleviate poverty, and enhances resilience to climate change impacts), Improving Agricultural Productivity (advances management practices that optimize use and allocation of limited resources and improves animal health and productivity), and Reducing Risk and Vulnerability (does research to improve the livelihoods of livestock producers, enhances income diversification, and reduces risks in the face of climate change). In addition, the LCC CRSP provides Technical Assistance, Institution Building, and Capacity Development, in particular, through partnerships with host country graduate students and faculty in research and training opportunities.



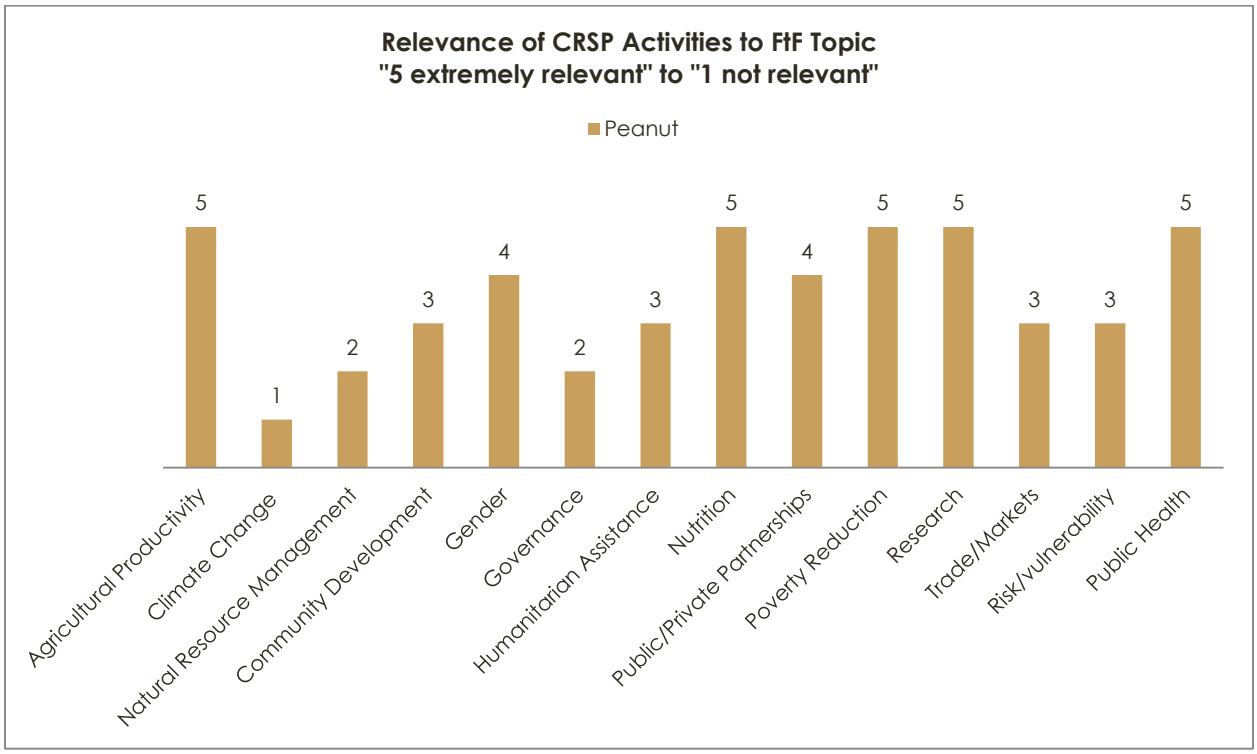
Nutrition CRSP

The Nutrition CRSP aims to identify and replicate the most effective approaches to improving child nutrition at scale in priority developing countries. This effort is motivated by continued widespread maternal and child malnutrition, even in countries benefitting from agricultural growth and poverty reduction. Despite much rhetoric about how various interventions in agriculture and public health might improve child nutrition, there is still limited empirical evidence of how to bring and sustain the greatest improvements on the largest scale. The Nutrition CRSP focuses on countries across Africa and Asia to explore not just 'what' should be done, but 'how' evidence-based interventions can be most effectively moved from community-level pilots to national programs and policies. This activity has a strong element of capacity-building for problem analysis, operations research, and implementation of best practice. In line with FtF guidelines, the Nutrition CRSP activities represent an investment in country-led research that supports outcome-based programming and partnerships. It considers what sets of 'essential actions' are needed not only in food production and marketing, but also in water management, disease control, private sector development, environmental management, and health service delivery. Success in identifying strategic combinations of interventions requires location-specific research, whose focus and methods are tailored to the needs of implementation agencies and household participants at the community level. The CRSP will interact closely with USAID and other partners, building agreement around key lessons and feeding insights into mission-supported FtF interventions, host government policy debates, and regional and international evidence building.



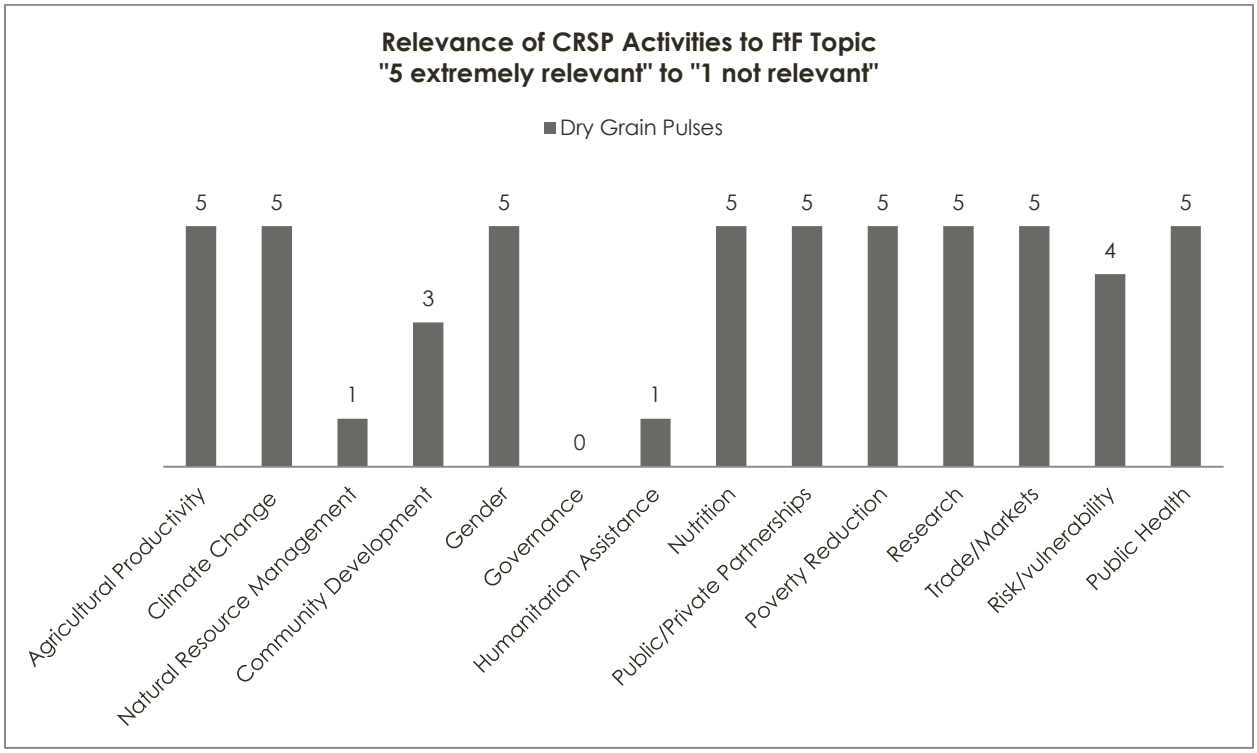
Peanut CRSP (PCRSP)

The Peanut CRSP contributes to the FtF initiative through projects affecting agricultural growth, market access, and nutrition. This is done by providing small farmers with technologies, market expansion tools for commonly neglected commodities, and provides consumers with highly nutritious foods. The Peanut is distinct from most other crops considered for FtF, because it is both protein and energy dense, with high value-adding potential, and is grown and processed in Africa mostly by women. Additionally, peanut is a legume with superior nitrogen fixing abilities providing system level benefits equivalent to 60-100 kg N/ha when grown properly. PCRSP focuses on improvements across the whole value chain: a) increasing agricultural productivity through farming systems and genetic improvement research; b) through processing and food safety technologies in order to provide the consumer and vulnerable groups (malnourished children, people living with AIDS) better nutrition and safer foods. Non-farm rural livelihoods are also addressed through the development of industries to add value to peanuts, improve and develop local markets and market access, and improve nutrition and food quality. The PCRSP addresses mycotoxins relevant to many staple foods to increase food safety in developing countries, and to thereby improve public health-particularly reducing malnutrition and infectious disease rates (including HIV, TB and malaria). Almost all Africans are exposed to these natural food-borne toxins due to limitations of their food systems.



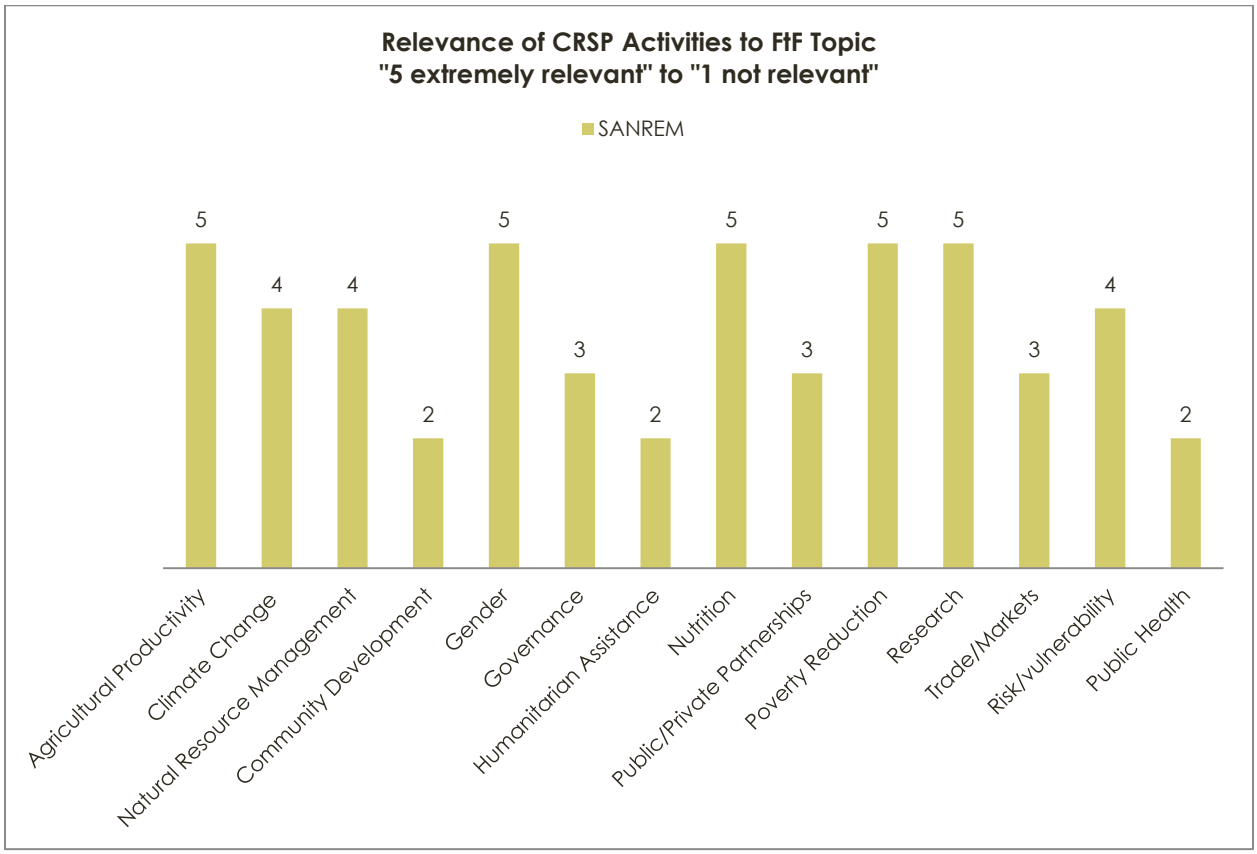
Dry Grain Pulses CRSP

The Dry Grain Pulses CRSP (Pulse CRSP) is strategically positioned to support FtF goals of increased agriculture sector growth and improved nutritional status of infants and children in food insecure countries. Pulses (e.g., dry beans, cowpea, pigeonpea, lima bean) are nutrient-dense affordable staple foods that contribute to household food and nutritional security, plus are produced as high value cash crops in many FtF countries. Strategic Pulse CRSP research investments aligned with FtF priorities include: a) Improving Agriculture Productivity- deployment of biological controls for insect pests in cowpea, bean, and cowpea varieties with resistance to diseases and pests plus adaptation to drought and low soil fertility, and improvement of biological nitrogen fixation in bean cropping systems through the use of *Rhizobium* inoculants and integrated crop management strategies; b) Increasing Access to Nutritious Foods- enhancement of the nutritional value of bean through processing, generation of new knowledge on the nutritional and health promoting attributes of cowpea, and the development of bean/cowpea and cereal-based foods for nutritional enhancement and the strengthening of immune systems in HIV+ children; c) Expanding Markets and Trade- strengthened pulse value chains and studies of bean market structure and function for the formulation of improved policies in Southern African countries, and the development of markets for "Fair Trade" beans from Central America. The Pulse CRSP also supports the dissemination of quality-declared seed of improved cowpea and bean varieties developed through the CRSP to resource-poor farmers in West Africa, Latin America, and Haiti. Projected enhancements in crop productivity are expected to improve household food and nutritional security.

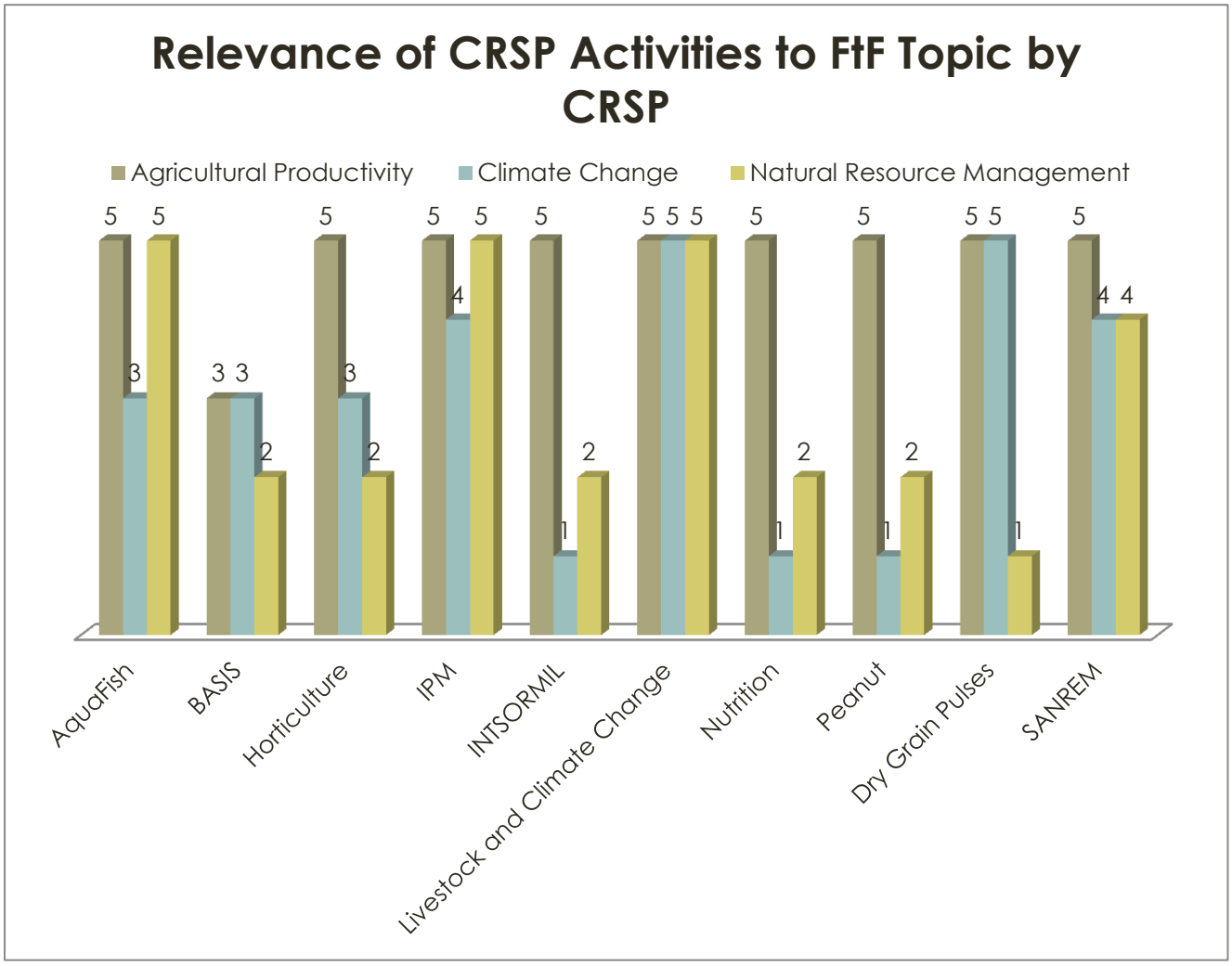


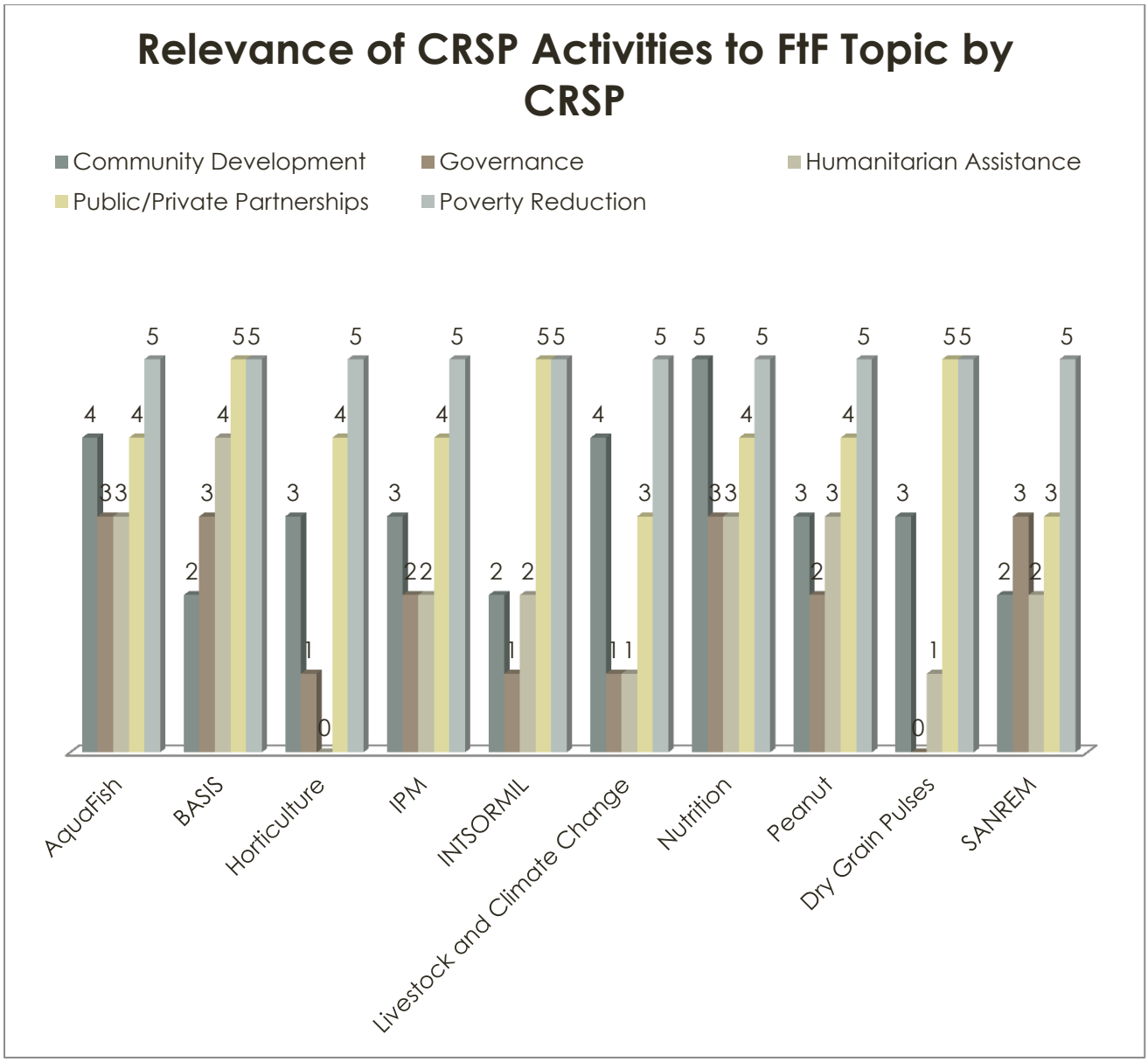
Sustainable Agriculture and Natural Resource Management (SANREM) CRSP

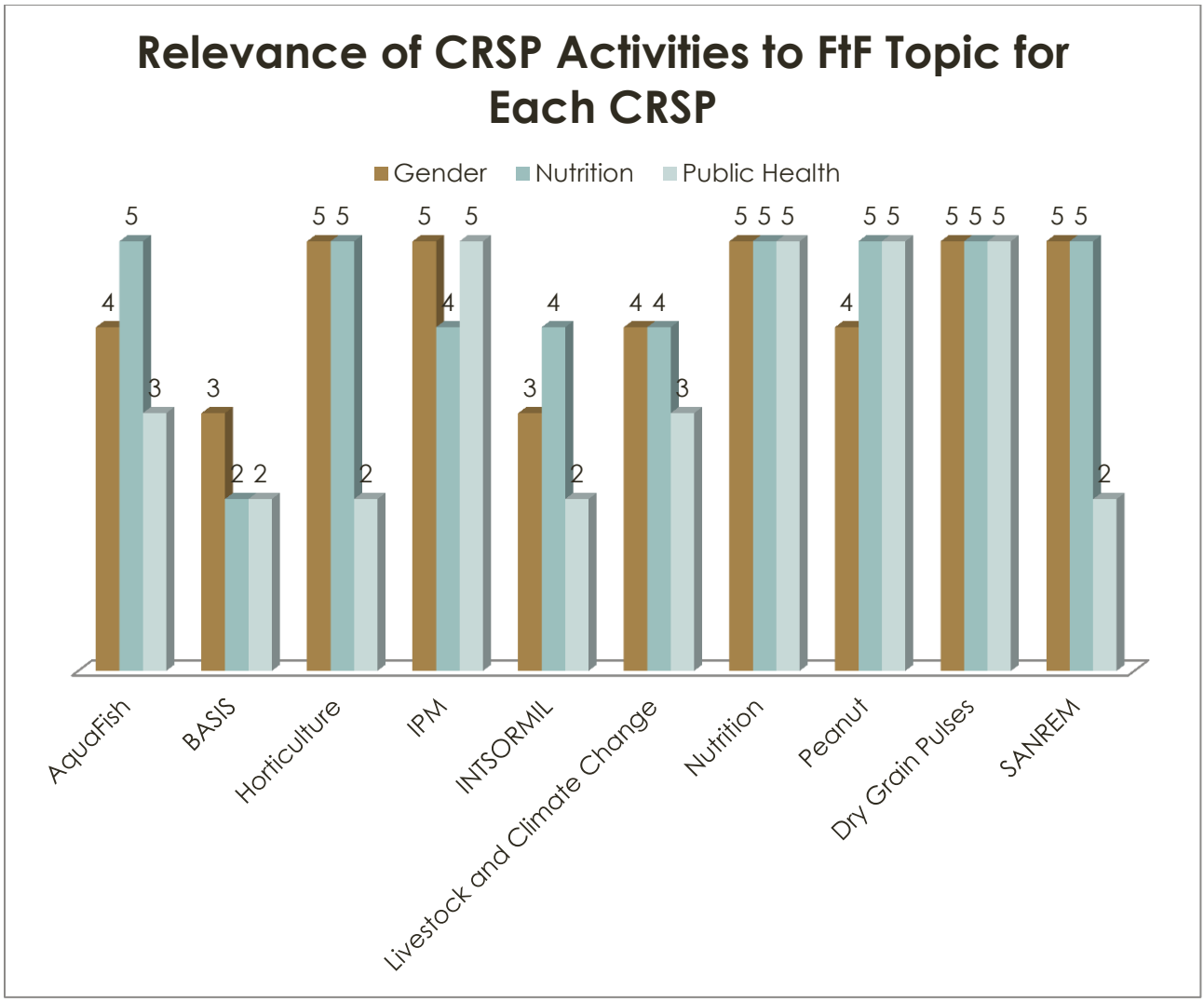
The SANREM CRSP is developing sustainable conservation agriculture production systems to increase smallholder agricultural productivity and food security thereby supporting the FtF goal to sustainably reduce global hunger and poverty. SANREM's multidisciplinary research program involves stakeholders at all levels and emphasizes gender and marginal group equity, environmentally sustainable development, and improved livelihoods through increased agricultural productivity through the restoration of degraded agricultural soils. The SANREM CRSP currently works with 8 US universities and 34 host country universities, research institutes and NGOs. SANREM research seeks *to improve agricultural productivity* through the introduction of conservation agriculture production systems that increase yields, soil fertility, water holding capacity, and response to inputs. This effort also *increases economic resilience in vulnerable rural communities* by stabilizing higher levels of production despite climate change and drought stress. Applied SANREM research increases soil carbon sequestration to comate global warming, and provides other ecosystem services such as soil conservation, groundwater recharge, and flood mitigation. *Technical Assistance, Institution-Building, and Capacity Development*: SANREM projects support local farmer groups, private sector input and advisory services, NGOs, research and extension institutions, and universities through participatory research, short-term training in production and marketing practices, and human and institutional capacity building through long-term disciplinary training.

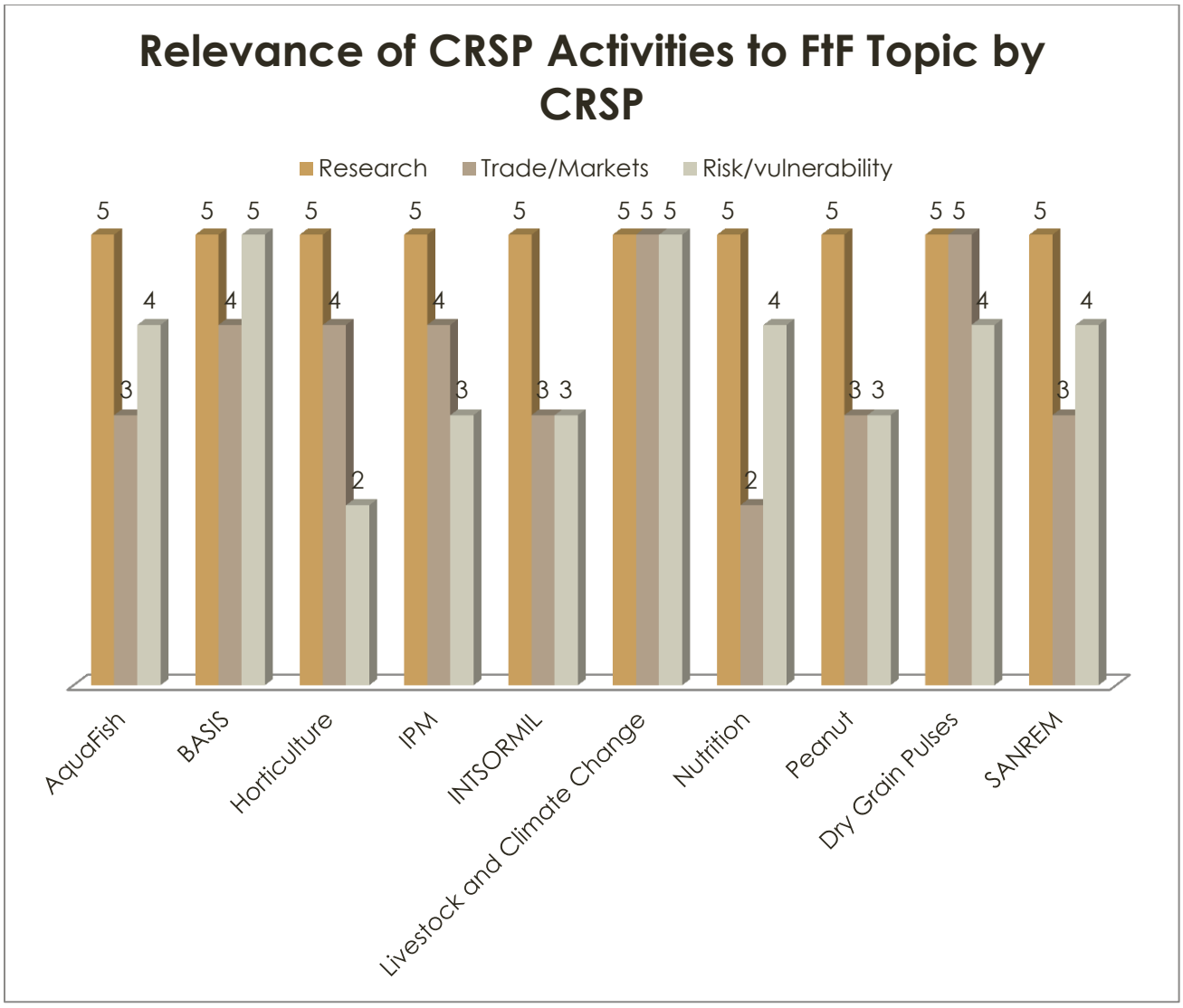


The following are tables showing the development topics across CRSPs.




Relevance of CRSP Activities to FtF Topic by CRSP
Community Development
Governance
Humanitarian Assistance
Public/Private Partnerships
Poverty Reduction
AquaFish
BASIS
Horticulture
IPM
INTSORMIL
Livestock and Climate Change
Nutrition
Peanut
Dry Grain Pulses
SANREM


Relevance of CRSP Activities to FtF Topic for Each CRSP
Gender
Nutrition
Public Health
AquaFish
BASIS
Horticulture
IPM
INTSORMIL
Livestock and Climate Change
Nutrition
Peanut
Dry Grain Pulses
SANREM


Relevance of CRSP Activities to FtF Topic by CRSP
Research
Trade/Markets
Risk/vulnerability
AquaFish
BASIS
Horticulture
IPM
INTSORMIL
Livestock and Climate Change
Nutrition
Peanut
Dry Grain Pulses
SANREM